Subpart G—J [Reserved]

Subpart K—Multipoint Distribution Service

§21.900 Eligibility.

Authorizations for stations in this service will be granted to existing and proposed communications common carriers and non-common carriers. Applications will be granted only in cases where it can be shown that:

(a) The applicant is legally, financially, technically, and otherwise qualified to render the proposed service;

(b) There are frequencies available to enable the applicant to render a satisfactory service; and

(c) The public interest, convenience and necessity would be served by a grant thereof.

The applicant shall state whether or not service will be provided on a common carrier or non common carrier basis. In addition, a common carrier applicant shall state whether there is any affiliation or relationship to any intended or likely subscriber or program originator.

[52 FR 27556, July 22, 1987, as amended at 56 FR 57817, Nov. 14, 1991; 60 FR 36552, July 17, 1995]

§21.901 Frequencies.

(a) Frequencies in the bands 2150–2162 MHz, 2596–2644 MHz, 2650–2656 MHz, 2662–2668 MHz, and 2674–2680 MHz are available for assignment to fixed stations in this service. Frequencies in the band 2150–2160 MHz are shared with non-broadcast omnidirectional radio systems licensed under other parts of the Commission's Rules, and frequencies in the band 2160–2162 MHz are shared with directional radio systems authorized in other common carrier services. Frequencies in the 2596–2644 MHz band are shared with Instructional Television Fixed Service Stations licensed under Part 74 of the Commission's Rules. The response channels E1, E2, F1, and F2 listed in §74.939(d) of this chapter are grandfathered for fixed stations in this band and are shared with Instructional Television Fixed Service Stations licensed under part 74 of the commission's rules; the existing response channels E3, E4, F3, and F4 listed in §74.939(d) of this chapter are grandfathered and licensed under this part 21.

(b) Applicants may be assigned a channel(s) according to one of the following frequency plans:

(1) At 2150–2156 MHz (designated as channel 1),

(2) At 2156–2162 MHz (designated as channel 2), or

(3) At 2156–2160 MHz (designated as channel 2A), or

(4) At 2596–2602 MHz, 2608–2614 MHz, 2620–2626 MHz, and 2632–2638 MHz (designated as channels E1, E2, E3, and E4, respectively, with the four channels to be designated the E-group channels), and response channels E1 and E2 (1) listed in §74.939(d) of this chapter,[1] or

(5) At 2602–2608 MHz, 2614–2620 MHz, 2626–2632 MHz, and 2638–2644 MHz (designated as channels F1, F2, F3, and F4, respectively, with the four channels to be designated the F-group channels), and response channels F1 and F2 listed in §74.939(d) of this chapter,[1] or

(6) At 2650–2656 MHz, 2662–2668 MHz, and 2674–2680 MHz (designated as channels H1, H2 and H3, respectively, with the three channels to be designated the H-group channels).[1]

(c) Channel 2 will be assigned only where there is evidence that no harmful interference will occur to any authorized point-to-point facility in the 2160–2162 MHz band. Channel 2 may be assigned only if the transmitting antenna of the station is to be located within 16.1 kilometers (10 miles) of the coordinates of the following metropolitan areas:

Principal City	Coordinates
Akron, Ohio	Lat. 41°05′06″ N., long. 81°31′06″ W.
Albany-Schenectady-Troy, N.Y.	Lat. 42°39′00″ N., long. 73°45′24″ W.
Anaheim-Santa Ana-Garden Grove, Calif.	Lat. 33°46′30″ N., long. 117°54′48″ W.
Atlanta, Ga	Lat. 33°45′00″ N., long. 84°23′12″ W.
Baltimore, Md	Lat. 39°17′18″ N., long. 76°37′00″ W.
Birmingham, Ala	Lat. 33°30′42″ N., long. 86°48′24″ W.
Boston, Mass	Lat. 42°21′42″ N., long. 71°03′30″ W.
Buffalo, N.Y	Lat. 42°53′12″ N., long. 78°52′30″ W.
Chicago, Ill	Lat. 41°53′00″ N., long. 87°37′30″ W.
Cincinnati, Ohio	Lat. 39°06′00″ N., long. 84°30′48″ W.
Cleveland, Ohio	Lat. 41°29′48″ N., long. 81°42′00″ W.
Columbus, Ohio	Lat. 39°57′42″ N., long. 83°00′06″ W.
Dallas, Tex	Lat. 32°46′36″ N., long. 96°48′42″ W.
Dayton, Ohio	Lat. 39°45′24″ N., long. 84°11′42″ W.
Denver, Colo	Lat. 39°44′24″ N., long. 104°59′18″ W.

Principal City	Coordinates
Detroit, Mich	Lat. 42°20′00″ N., long. 83°03′00″ W.
Fort Worth, Tex	Lat. 32°45′00″ N., long. 97°17′42″ W.
Gary, Ind	Lat. 41°36′00″ N., long. 87°20′00″ W.
Hartford, Conn	Lat. 41°46′00″ N., long. 72°40′30″ W.
Houston, Tex	Lat. 29°45′48″ N., long. 95°21′42″ W.
Indianapolis, Ind	Lat. 39°46′12″ N., long. 86°09′18″ W.
Kansas City, Mo	Lat. 39°06′00″ N., long. 94°34′42″ W.
Los Angeles-Long Beach, Calif.	Lat. 34°03′18″ N., long. 118°15′00″ W.
Louisville, Ky	Lat. 38°14′48″ N., long. 85°45′42″ W.
Memphis, Tenn	Lat. 35°07′30″ N., long. 90°03′24″ W.
Miami, Fla	Lat. 25°46′30″ N., long. 80°11′24″ W.
Milwaukee, Wis	Lat. 43°02′18″ N., long. 87°54′48″ W.
Minneapolis-St. Paul, Minn.	Lat. 44°59′00″ N., long. 93°15′48″ W.
New Orleans, La	Lat. 29°57′48″ N., long. 90°03′48″ W.
New York City, N.Y.-Newark-Jersey City-Paterson, N.J.	Lat. 40°42′30″ N., long. 74°00′00″ W.
Norfolk, Va	Lat. 36°50′42″ N., long. 76°17′12″ W.
Oklahoma City, Okla	Lat. 35°29′30″ N., long. 97°30′12″ W.
Philadelphia, Pa	Lat. 39°57′00″ N., long. 75°09′48″ W.
Phoenix, Ariz	Lat. 33°27′18″ N., long. 112°04′24″ W.
Pittsburgh, Pa	Lat. 40°26′12″ N., long. 80°00′30″ W.
Portland, Oreg	Lat. 45°32′06″ N., long. 122°37′12″ W.
Providence, R.I	Lat. 41°49′00″ N., long. 71°24′24″ W.
Rochester, N.Y	Lat. 43°09′30″ N., long. 77°36′30″ W.
Sacramento, Calif	Lat. 38°35′06″ N., long. 121°29′24″ W.
San Antonio, Tex	Lat. 29°25′24″ N., long. 98°29′43″ W.
San Bernardino-Riverside, Calif.	Lat. 34°06′30″ N., long. 117°18′36″ W.
San Diego, Calif	Lat. 32°42′48″ N., long. 117°09′12″ W.
San Francisco-Oakland, Calif.	Lat. 37°46′30″ N., long. 122°25′00″ W.
San Jose-Palo Alto-Sunnyvale, Calif.	Lat. 37°22′36″ N., long. 122°02′00″ W.
Seattle-Everett, Wash.	Lat. 47°35′48″ N., long. 122°19′48″ W.
St. Louis, Mo	Lat. 38°37′00″ N., long. 90°11′36″ W.
Syracuse, N.Y	Lat. 43°03′06″ N., long. 76°09′00″ W.
Tampa-St. Petersburg, Fla.	Lat. 27°57′06″ N., long. 82°27′00″ W.
Toledo, Ohio	Lat. 41°38′48″ N., long. 83°32′30″ W.
Washington, D.C	Lat. 38°53′30″ N., long. 77°02′00″ W.

(d) Frequencies in the band 2596–2644 MHz and associated response channels will be assigned only in accordance with the following conditions:

(1) [Reserved]

(2) [Reserved]

(3) All applicants for frequencies in this band must specify the channels being applied for; however, the Commission may on its own initiative assign different channels in the band if it is determined that such action would serve the public interest.

(4) Notwithstanding the provisions of §21.31 of this part, applications for frequencies in this band will be accepted only on the date(s) specified by the Commission.

(5) Notwithstanding the provision of §21.31(a) all applications, except for those filed on or after September 15, 1995, that propose to locate transmission facilities within or within 24.1 kilometers (15 miles) of the border of a Standard Metropolitan Statistical Area (SMSA) will be considered together. In the case of a Standard Consolidated Statistical Area (SCSA) all applications that propose to locate facilities within or within 24.1 kilometers (15 miles) of the boundary of any SMSA contained in the SCSA will be considered together. In those cases in which an applicant proposes to locate its transmission facilities so that it will be located in, or within 24.1 kilometers (15 miles) of, more than one SMSA, the applicant must specify which SMSA it intends to be its primary service area. Each application will be entitled to comparative consideration or to be included in a lottery in only one such service area.

(6) Licensees or permittees of the frequencies in this band may petition the Commission to authorize exchange of assigned channels to allow adjacent channel operation. For example, one licensee may be assigned channels E_1, F_1, E_2 and F_2 and the other licensee could be assigned channels E_3, F_3, E_4 and F_4. Such a petition will be granted if the petitioners show that the exchange will result in better service to the public.

(7) All applications for frequencies in this band, except for those filed on or after September 15, 1995, must contain a showing of how interference with the operation of adjacent channels will be avoided and what steps the applicant has taken to comply with §21.902(a) of this part.

(e) Frequencies in the band segments 18,580–18,820 MHz and 18,920–19,160 MHz are available for assignment to fixed stations in this service for a point-to-point return link from a subscriber's location. Assignments in the 18 GHz band for these return links will be made in accordance with the provisions of subpart I of part 101 of this chapter.

(f) MDS H-channel applications. Frequencies in the bands 2650–2656 MHz, 2662–2668 MHz, or 2674–2680 MHz must be assigned only in accordance with the following conditions: All applications for MDS H-channel stations must specify either the H1, H2, or H3 channel

for which an application is filed; however, the Commission may on its own initiative assign different channels in these frequency bands if it is determined that such action would serve the public interest.

NOTES:

[1] No response channels are provided for channels E3, E4, F3, F4, H1, H2, and H3.

[44 FR 60534, Oct. 19, 1979, as amended at 48 FR 33900, July 26, 1983; 49 FR 25479, June 21, 1984; 49 FR 37777, Sept. 26, 1984; 55 FR 46009, Oct. 31, 1990; 56 FR 57598, Nov. 13, 1991; 56 FR 57817, Nov. 14, 1991; 58 FR 11798, Mar. 1, 1993; 58 FR 44895, Aug. 25, 1993; 60 FR 36552, July 17, 1995; 61 FR 26676, May 28, 1996]

§ 21.902 Frequency interference.

(a) All applicants, conditional licensees, and licensees shall make exceptional efforts to avoid harmful interference to other users and to avoid blocking potential adjacent channel use in the same city and cochannel use in nearby cities. In areas where major cities are in close proximity, careful consideration should be given to minimum power requirements and to the location, height, and radiation pattern of the transmitting antenna. Licensees, conditional licensees, and applicants are expected to cooperate fully in attempting to resolve problems of potential interference before bringing the matter to the attention of the Commission.

(b) As a condition for use of frequency in this service, each applicant, conditional licensee, and licensee is required to:

(1) Not enter into any lease or contract or otherwise take any action that would unreasonably prohibit location of another station's transmitting antenna at any given site inside its own protected service area.

(2) Cooperate fully and in good faith to resolve interference and transmission security problems.

(3) Engineer the system to provide at least 45 dB of cochannel interference protection within the 56.33 km (35 mile) protected service area of any authorized or previously proposed station that transmit, or may transmit, signals for standard television reception.

(4) Engineer the station to provide at least 0 dB of adjacent channel interference protection within the 56.33 km (35 mile) protected service area of any authorized or previously proposed station that transmits, or may transmit, signals for standard television reception.

(5) (i) Engineer the station to limit the calculated free space power flux density to -73 dBW/m^2 at the boundary of a 56.33 km (35 mile) protected service area, where there is an unobstructed signal path from the transmitting antenna to the boundary; or alternatively, obtain the written consent of the entity authorized for the adjoining area to exceed the -73 dBW/m^2 limiting signal strength at the common boundary.

(ii) In determining signal path conditions, the following shall be used: a 9.1 meter (30 feet) receiving antenna height, the transmitting antenna height, terrain elevations and 4/3 earth radius propagation conditions.

(6) If a proposed station is within 80 km (50 miles) of the Canadian or Mexican border, the station must be designed to meet the requirements set forth in international treaties.

(c) The following interference studies must be prepared, must be available to the Commission upon request, and may be submitted as part of any application:

(1) An analysis of the potential for harmful interference within the 56.33 km (35 mile) protected service areas of any authorized or previously proposed incumbent station:

(i) if the coordinates of the applicant's proposed transmitter are within 160.94 km (100 miles) of the center coordinates of any authorized or previously proposed incumbent station with protected service area of 56.33 km (35 miles) as specified in § 21.902(d); or

(ii) if the great circle path between the applicant's proposed transmitter and the protected service area of any authorized, or previously-proposed, cochannel or adjacent-channel station(s) is within 241.4 kilometers or less and 90 percent or more of the path is over water or within 16.1 kilometers of the coast or shoreline of the Atlantic Ocean, the Pacific Ocean, the Gulf of Mexico, any of the Great Lakes, or any bay associated with any of the above (see §§ 21.901(a) and 74.902 of this chapter);